

Appl. No. 09/865,369
Amendment dated Feb. 13, 2004
Reply to Office action of Dec. 8, 2003
Docket No. 6169-201

IBM Docket No. BOC9-2000-0065

A³ can determine the reported metric values based upon the component metric values and can convey the reported metric values to the appropriate locations within the graphical display map.

Amendments to Claims:

This listing of claims will replace all prior versions and listings of claims in the instant application:

Listing of Claims:

A⁴ 1. (Currently Amended) A dynamic network node metrics reporting method, comprising:
probing a content delivery network (CDN) component for determined and undetermined ones of selected metric values characterizing the performance of said CDN component;
reporting said determined metric values to a recipient graphical display interface; and
repeating said probing and said reporting steps for said undetermined metric values,
wherein said probing and said reporting steps occur in a first agent, and wherein said repeating step occurs in a second agent.

2. (Canceled)

3. (Canceled)

4. (Currently Amended) The method according to ~~the~~ claim 3¹, wherein said reporting step comprises:

updating a first update message with said determined metric values resulting from said probing step initiated by said first agent; and

adding to said first update message, a predefined code, said predefined code relating to said undetermined values.

A⁵ 5. (Original) The method according to claim 4, wherein said repeating step comprises:

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updating a second update message with determined metric values resulting from said probing initiated by a second agent, said determined metrics corresponding to said undetermined metrics resulting from said probing initiated by said first agent; and

adding a predefined code to said second update message, said predefined code relating to said determined metric values in said first update message.

6. (Original) The method according to claim 5, wherein values within said fields of said first and said second update message are used to update values within said recipient graphical display, where said graphical display is updated using said determined metric values.

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7. (Original) The method according to claim 5, wherein said selected predefined code defines an action selected from the group consisting of disregarding a result from said probing step, indicating a problem with said probing step, and keeping an existing value of said metric without setting it.

8. (Original) The method according to claim 1, wherein said metrics is at least one selected from the group consisting of a CPU load, network capacity, run queue size, connections, memory usage, page ins, and disk I/O.

9. (Original) A method for dynamically reporting a plurality of metrics for components of a dynamic data space, comprising:

probing a component of the dynamic data space for determined and undetermined ones of selected metric values characterizing the data space;

reporting said determined metric values to a recipient graphical display interface; and

repeating said probing and reporting steps for said undetermined metric values, wherein said reporting step occurs in a first agent, and wherein said repeating step occurs in a second agent.

10. (Canceled)

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11. (Canceled)

12. (Currently Amended) The method according to claim ~~11~~9, wherein said reporting step comprises:

updating a first update message with said determined metric values resulting from said probing step initiated by said first agent; and

adding to said first update message a predefined code, said predefined code relating to said undetermined values.

13. (Original) The method according to claim 12, wherein said repeating step comprises:

updating a second update message with determined metric values resulting from said probing initiated by a second agent, said determined metrics corresponding to said undetermined metrics resulting from said probing initiated by said first agent; and

adding a predefined code to said second update message, said predefined code relating to said undetermined metric values in said first update message.

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14. (Original) The method according to claim 13, wherein values within said fields of said first and said second update message are used to update values within said recipient graphical display, wherein said graphical display is updated using said determined metric values.

15. (Original) The method according to claim 13, wherein said selected predefined code defines an action selected from the group consisting of disregarding a result from said probing step, indicating a problem with said probing step, and keeping an existing value of said metric without setting it.

16. (Currently Amended) A machine readable storage having stored thereon, a computer program having a plurality of code sections, said code sections executable by a machine for causing the machine to perform the steps of:

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probing a CDN component for determined and undetermined ones of selected metric values characterizing the performance of said CDN component, the code sections for reporting metrics for said CDN components;

reporting said determined metric values to a recipient graphical display interface; and

repeating said probing and said reporting steps for said undetermined metric values, wherein said probing and said reporting steps occur in a first agent, and wherein said repeating step occurs in a second agent.

17. (Canceled)

18. (Canceled)

19. (Currently Amended) The machine readable storage according to ~~the~~ claim ~~18~~¹⁶, wherein said reporting step comprises:

updating a first update message with said determined metric values resulting from said probing step initiated by said first agent; and

adding to said first update message, a predefined code, said predefined code relating to said undetermined values.

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20. (Original) The machine readable storage according to claim 19, wherein said repeating step comprises:

updating a second update message with determined metric values resulting from said probing initiated by a second agent, said determined metrics corresponding to said undetermined metrics resulting from said probing initiated by said first agent; and

adding a predefined code to said second update message, said predefined code relating to said determined metric values in said first update message.

21. (Original) The machine readable storage according to claim 20, wherein values within said fields of said first and said second update message are used to update values within

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said recipient graphical display, where said graphical display is updated using said determined metric values.

22. (Original) The machine readable storage according to claim 20, wherein said selected predefined code defines an action selected from the group consisting of disregarding a result from said probing step, indicating a problem with said probing step, and keeping an existing value of said metric without setting it.

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23. (Original) The machine readable storage according to claim 16, wherein said metrics is at least one selected from the group consisting of a CPU load, network capacity, run queue size, connection, memory usage, page ins capacity, and a disk I/O.

24. (Currently Amended) A machine readable storage having stored thereon, a computer program having a plurality of code sections, the code sections executable by a machine for causing the machine to perform the steps of:

probing a component of the dynamic data space for determined and undetermined ones of selected metric values characterizing said component, the code sections for reporting a plurality of metrics for components of a dynamic data space;

reporting said determined metric values to a recipient graphical display interface; and

repeating said probing and reporting steps for said undetermined metric values, wherein said probing and said reporting steps occur in a first agent, wherein said repeating step occurs in a second agent.

25. (Canceled)

26. (Canceled)

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27. (Currently Amended) The machine readable storage according to claim 26~~24~~, wherein said reporting step comprises:

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updating a first update message with said determined metric values resulting from said probing step initiated by said first agent; and

adding to said first update message a predefined code, said predefined code relating to said undetermined values.

28. (Original) The machine readable storage according to claim 27, wherein said repeating step comprises:

updating a second update message with determined metric values resulting from said probing initiated by a second agent, said determined metrics corresponding to said undetermined metrics resulting from said probing initiated by said first agent; and

adding a predefined code to said second update message, said predefined code relating to said determined metric values in said first update message.

29. (Original) The machine readable storage according to claim 28, wherein values within said fields of said first and said second update message are used to update values within said recipient graphical display, wherein said graphical display is updated using said determined metric values.

30. (Original) The machine readable storage according to claim 28, wherein said selected predefined code defines an action selected from the group consisting of disregarding a result from said probing step, indicating a problem with said probing step, and keeping an existing value of said metric without setting it.

31. (Original) The machine readable storage according to claim 28, wherein said component is a CDN component.

32. (Currently Amended) A dynamic CDN node metrics reporting system, comprising:

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a graphical display map for displaying a plurality of nodes and visual representations of reported metric values for characterizing components, said nodes representing said components, wherein individual ones of said nodes include a plurality of said visual representations;

a plurality of said components distributed across a heterogeneous network; and

a plurality of agents configured to probe said components for ~~determined and undetermined ones of selected component~~ metric values, ~~said agents reporting said determined metric values and codes representing said undetermined metric values~~ determining said reported metric values based upon said component metric values and conveying said reported metric values to said graphical display map.

33. (Canceled)

34. (New) The system of claim 32, wherein each of said agents is a platform-independent software object.

35. (New) The system of claim 34, wherein said agents are distributed across said heterogeneous network.

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36. (New) The system of claim 32, wherein at least one of said nodes includes a plurality of said visual representations for that node.

37. (New) The system of claim 36, wherein said plurality of visual representations for said node are based upon reported metric values conveyed to said node from a plurality of different agents.

38. (New) The system of claim 32, wherein said reported metric values include values representing said component metric values that are displayed as said visual representations and control values that are not displayed as said visual representations.
